5th ETV CCEP Stakeholders Meeting Summary
April 15, 1999

EPA Environmental Research Center Auditorium Research Triangle Park, NC

Attendees

Stakeholders

- Brian Schweitzer, Concurrent Technologies Corporation
- Michael Kosusko, U.S. EPA/NRMRL
- John Raschko, Massachusetts Office of Technical Assistance, National Pollution Prevention Roundtable
- Dave Salman, U.S. EPA/OAQPS/Coatings and Consumer Products Group
- Eugene Praschan, Environmental and Coatings Consultant, ASTM
- Alexander Ross, RadTech International
- Carl P. Izzo, Industrial Paint Consultant George Bryant, Briggs & Stratton Corporation
- Larry Melgary, Northern Coatings and Chemical Co., Chemical Coaters Association International
- Jim Berry, Berry Environmental, ASTM Mark Wayner, Pennsylvania Department of Environmental Protection
- Rick Klein, Iowa Waste Reduction Center
- Bob Carter, North Carolina Waste Reduction Resource Center
- Candace Sorrell, U.S. EPA/OAQPS/Emission Measurements Center William Johnson, U.S. EPA/OAQPS/AQSSD

Observers

- Michelle Mandolia, ICF Kaiser
- Rhea Powell, U.S. EPA/OAQPS/Coatings and Consumer Products Group
- Charles Masser, U.S. EPA/NRMRL
- Dean Smith, U.S. EPA/NRMRL
- Kara Linna, U.S. EPA/NRMRL
- Jimmy Pau, U.S. EPA/NRMRL
- Jane Bailey, Industrial Paint and Powder Magazine

Key Meeting Results

Presented and discussed the status of :

- HVLP Testing;
    - Curing Emissions Method Development;
    - Painter Training Device (Laser Touch®) Test Planning; and

    - Innovative Liquid Paint Test Planning.
- Discussed ETV CCEP marketing issues and completion time frame for report processing.
- Received support from the stakeholders for 'Cleaning Systems for Painting Equipment' to be the next focus area.
- Discussed the need for qualitative cost data in verification reports and statements. Formed two stakeholder subgroups to focus on:
    - Curing emissions measurement methods (Larry Melgary, David Salman, Mark Wayner).
    - Marketing of ETV CCEP (Eugene Praschan, John Raschko).
- The next stakeholder meeting has been scheduled for September 20, 1999, in conjunction with Coating '99 in Dallas, Texas.

Meeting Summary

Opening Presentations

Brian Schweitzer opened the meeting by welcoming the stakeholders and observers. He thanked the stakeholders for their involvement in the ETV CCEP at the semi-annual meetings and in the interim between meetings, especially during the past six months. He reviewed the agenda, and then the stakeholders and other attendees each introduced themselves.

Mr. Schweitzer then reminded the audience of the two primary success measures for the ETV CCEP: (1) will vendors want to participate, and how many will participate in verification testing, and (2) will the vendors see a marketing benefit through increased sales from the verification statement. Mr. Schweitzer then presented the goals, accomplishments and plans of the ETV CCEP, focusing on the completed testing of four high volume, low pressure (HVLP) spray guns, the upcoming verifications including the Laser Touch® and liquid coatings, and the planned outreach for 1999. He emphasized the importance of the discussion in the afternoon on the emissions test method development, and that this method was needed for the ETV CCEP to proceed with testing of solventborne liquid paints, and subsequently waterborne and UV-curable coatings. He also stated that the results of the HVLP verification tests could not be presented because they had not been reviewed and approved by EPA.

There were several questions from the group. John Raschko asked how long it would take to get the reports done and approved. Mr. Schweitzer stated that the ETV CCEP was hoping to accomplish this in four to five months. He also stated that the ETV CCEP realized that the timeliness of the reports was an important issue with the industry, and hopefully after a first report is submitted through the process, subsequent reports will take less time.

Alex Ross asked if we needed to show environmental benefits as part of the verification testing. Mr. Schweitzer answered yes, and that the ETV CCEP realized that this was not the primary evaluation factor for potential users of pollution prevention technologies. Dr.

Ross also asked if transfer efficiency (TE) was the primary evaluation criteria for HVLP equipment, and if recirculation or recycling of emissions was considered. Mr. Schweitzer acknowledged that TE was the primary environmental factor for evaluating HVLP equipment. He also stated that since we are verifying the performance of a specific spray gun, paint filtration and reuse could not be considered as part of this evaluation, but that these systems could be a potential future focus area.

Jane Bailey asked how the draft protocols were developed and what the difference was between the generic protocol and test plans. Mr. Schweitzer explained that a strawman protocol was first developed and discussed with the stakeholders group for comments. The protocol was then discussed at the vendor meeting and an agreement on the scope reached with the vendors. It was then circulated to the stakeholder group for review and concurrence. The end product became the generic protocol for testing a particular type of technology. The test plans were simply the generic protocol applied to a specific product within that type of technology, that included specific parameters for operating a particular product, that was used for testing that product. Mike Kosusko added that a lesson learned by the ETV CCEP was not to put too much effort into generic protocol development until it was certain that vendors of that type of technology would participate in the program and an understanding of their requirements had been attained.

Alex Ross asked about failed tests and what happens to the report and verification statement in that case. Mr. Schweitzer explained that a report would be published by EPA regardless and that the verification statement was only issued with the vendors consent.

Mike Kosusko then presented a brief overview and update of the ETV program, emphasizing the objectives and policies of the program. He discussed the status of each of the twelve pilots under ETV, and the number of completed verifications and technologies in process for each pilot.

Summary of Other Major Topics of Discussion

General Issues

Mr. Schweitzer opened a discussion prior to lunch on suggestions for marketing the program and identifying future focus areas. Dr. Ross stated that the coatings industry has a close coordination between vendors and users to develop and customize coatings for a particular application. He said that the ETV program must resolve how to approach this issue to be successful. He reminded the group of the proposal to verify general classes of technologies proposed by RadTech and the Powder Coating Institute, and subsequently rejected by ETV. Jane Bailey said that exhibiting at trade shows is important in addition to presenting.

Larry Melgary stated that this is a new and unique program for EPA, and that it takes time to generate understanding and trust in the program. He stated that the presentation by Mr. Schweitzer and Rick Klein at the Milwaukee Chapter of the Chemical Coaters Association International (CCAI) went over well with the audience. Rick Klein said that

the Iowa Waste Reduction Center (IWRC) had been asking customers for the Laser Touch® about ETV, and that many feel that it would help the marketability of the product. He also added that vendors who are small businesses can really utilize verification services. George Bryant stated that successes lead to greater interest in the user community and that aggressive marketing of these successes can create even greater benefits.

Bob Carter stated that the North Carolina Waste Reduction Resource Center is linking all the technical assistance databases, and that they list vendor information without evaluation but do not support their claims. Dave Salman suggested that we network with the National Metal Finishing Resource Center (NMFRC) and the Paint and Coating Resource Center.

Stakeholders asked to be notified by email periodically about new material that is posted to the ETV web site. This will help them to be more active between stakeholder meetings

Curing Emissions Test Method

Mr. Kosusko opened the presentation and discussion of the emissions test method development for liquid coatings by providing background on the need and objective of the effort. He stated that the objective is to measure curing emissions and is focused on the hazardous air pollutant (HAP) by-products of the curing reaction process, and that EPA Method 24 is the method that the ETV CCEP will use to measure volatile organic compounds (VOCs) emitted from the coatings. Mr. Kosusko added that although the effort is focused on the need of the ETV coatings pilot, we plan to coordinate with others that may be developing similar methods such as ASTM and the EPA OAQPS Emissions Measurement Center and Coatings and Consumer Products Group. The need to prove an overall environmental benefit for each technology tested is the driving force for this measurement. He added that we expect to confirm the environmental benefit of low-VOC emissions during application of high-solid, waterborne, UV-curable, and powder coatings, and make sure that we are not creating a new environmental problem during the curing process.

Kara Linna then presented a technical overview of the approach and plan to develop and validate the coating curing emissions measurement method. A written technical description of this plan was also distributed to the attendees for discussion. This purpose of this method can be summarized as follows: (1) to verify the environmental performance of innovative coatings, (2) to determine the VOCs and HAPs emitted during curing of high-temperature cured innovative liquid and powder coatings, and (3) that the method is not intended to replace Method 24 or affect existing regulatory policy.

A number of questions and comments were expressed by the group following this presentation. Jim Berry stated that we should compare these results to headspace analysis at 110°C, which is part of EPA Method 24. He also stated that coatings may not need to be heated to high temperature to get emissions data. Dave Salman stated that we need to compare this headspace analysis with EPA Method 311. He also asked if it was possible

to develop a method to identify coating formulations that might generate hazardous emissions or to screen certain coating formulations that we know would not cause hazardous emissions. Alex Ross stated that new coating formulations are not always easily measured with EPA Method 24. Larry Melgary stated that some coil coatings are cured up to 700° to 800° F. Jim Berry also advised that MSDS's can't be trusted for emissions information and are only developed for health and safety purposes. He suggested that the EPA contact Ray Wells of the U.S. Air Force who has been doing similar work. George Bryant agreed with the fact that MSDS's can't be trusted and stated that Briggs and Stratton does their own internal testing on all coatings received at the company. Mark Wayner asked why emissions were being measured if the vendor stated no claims regarding emissions. Mr. Schweitzer stated that the ETV program does not focus on measuring or comparing our results to vendor claims, even though some verification factors may be the same as claims made. The group agreed overall that we were headed in the right direction but needed to involve the stakeholders group as we complete the curing emissions method development process. Mike Kosusko wrapped up the discussion by thanking the group for their input and said that these suggestions would be considered. Mr. Kosusko also suggested a sub-group of four to five members of the stakeholders group be formed to focus on feedback for the emissions measurement development effort. The stakeholders group agreed. Volunteers for the group at the meeting were Larry Melgary, Mark Wayner, and Dave Salman.

Laser Touch® Test Planning Status

Rick Klein gave a presentation on the Laser Touch® and the general test plan for testing the product under ETV. A preliminary test plan has been developed by the IWRC and will be used to evaluate the Laser Touch® once approved by EPA and CTC. CTC will audit the testing using the quality guidelines established by EPA for the ETV program.

Larry Melgary stated that the product could have applications for robotic painting systems. The question was asked about the applicability of the product to powder coating,. Rick Klein stated preliminary tested had been done on a powder coating system and that he say no reason it could not be used when applying powder. Dave Salman asked whether it would be perceived as a conflict of interest for this testing to be performed at IWRC. It was explained that the testing would be overseen and audited by CTC, and that outside painters would be used. Several attendees stated that is should not matter where testing is done, and that it was important to have the vendor involved as much as possible in the development of the test protocol to ensure that the product is operated properly and evaluated under the intended operational conditions. It was stated that the final test plan would be available for stakeholder review for those interested.

Cleaning Systems for Painting Equipment

There was a discussion of cleaning systems for painting equipment as a future focus area. Larry Melgary mentioned the Hydropurge® system that was new and in use to clean spray guns as an alternative to solvent cleaning systems. He mentioned that our spray gun cleaning focus area should be expanded to include all application equipment cleaning

systems such as disks, bells, etc. The stakeholders group present agreed. Alex Ross mentioned that cleaning all coatings systems, including printers, was a major environmental problem, possibly larger than the environmental issue of the coatings themselves.

Cost Information

There was a brief discussion of the need for cost data or to present cost information. The group agreed that it was not practical or useful to collect cost data as part of a verification test, but that general cost information about a technology should be discussed. Eugene Praschan stated that a qualitative discussion of cost information should be included in the verification statement. Larry Melgary mentioned that the program should be marketed to emphasize the fact that we can promote the cost savings qualities of products.

Marketing

Mr. Schweitzer asked the group for any suggestions on how to best market the program and to express any feedback on the program that they had heard, whether positive or negative. John Raschko said that the overall impression of the ETV program is that it had not been very successful to this point based on the number of verifications completed. Mr. Schweitzer said that for each pilot there was a significant effort that took a year or more from the start just to establish the capability to conduct verification testing under a program such as ETV. Mr. Raschko also stated that the$15K testing fee and length of time projected to get an approved verification report competed were difficult for the outside world to understand. Alex Ross stated that the number of independent coating testing laboratories had decreased significantly lately. Jim Berry stated that before the term pollution prevention became popular, similar efforts were promoted as process change efforts. It was suggested that an additional subgroup should possibly be formed to focus on marketing efforts. Mr. Kosusko and Mr. Schweitzer said that they would investigate forming this subgroup Eugene Praschan and John Raschko volunteered for this subgroup

Mr. Schweitzer emphasized that the ETV CCEP would appreciate stakeholder support in identifying other opportunities for articles in industry or association publications, or for presentation at industry or association meetings. Eugene Praschan said that there may be an opportunity to present at the next ASTM annual meeting in June.

Next Meeting

Mr. Schweitzer closed the meeting by once again thanking the stakeholders for their involvement. He reminded the group that the next stakeholder meeting would be held at the Dallas Convention Center in Dallas, TX, on September 20, 1999, which is the week and location of Coating ’99.